

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023634**Date Inspected:** 12-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG Trial Assembly open yard.

Segment:13AW

This QA Inspector randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) repair welding of weld joint identified as SEG3013E-075. Welder is identified as 066002. ZPMC QC is identified as Mr. Zhang lin. The welding variables recorded by QC personnel observed appeared to comply with Welding Procedure Specification (WPS): WPS-345-SMAW-3G (3F)-FCM-repair-1. The repair welding was being performed as per Welding Repair Report (WRR) No: B-WR20604.

SMAW repair welding of weld joint identified as SEG3013G-089. Welder is identified as 069863. ZPMC QC is identified as Mr. Zhang lin. The welding variables recorded by QC personnel observed appeared to comply with Welding Procedure Specification (WPS): WPS-345-SMAW-3G (3F)-FCM-repair-1. The repair welding was being performed as per WRR No: B-WR20604.

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Flux Cored Arc Welding (FCAW) repair welding of weld joint identified as SEG3013AX-054. Welder is identified as 067103. ZPMC QC is identified as Mr. Zhang lin. The welding variables recorded by QC personnel observed appeared to comply with WPS: B-T-2133-ESAB.

During random in process visual inspection of OBG13AW Panel Point#117.5 Counter weight side, this QA observed 2 longitudinal linear toe cracks measuring approximately 160 and 150 mm in length. The weld joints are identified as SEG3013R-032 and 033 respectively. The welds are fillet welds joining RS stiffener plate (RS3383A) to floor beam FB3172A (X4188A). The "Y" locations 0 from top of the welds. This QA marked the affected areas and informed ZPMC Quality Control (QC) CWI identified as Mr. Shi lei of this issue. Mr. Shi lei informed this QA that the crack would be corrected in a manner compliant with the contract documents. This QA Inspector also informed to Lead QA Inspector of the issue. See attached photos for further details.

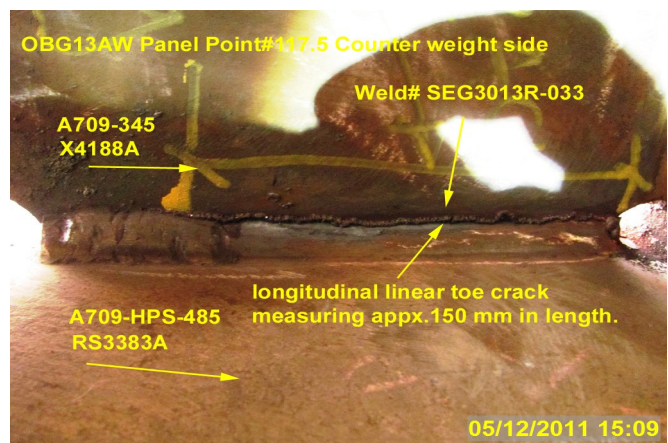
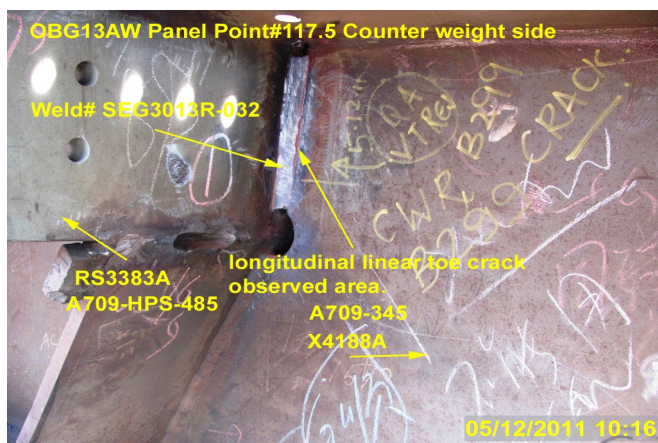
Segment:13BW

FCAW repair welding of weld joint identified as SA3122-007. Welder is identified as 066695. ZPMC QC is identified as Mr. Sun tian liang. The welding variables recorded by QC personnel observed appeared to comply with WPS: B-T-2231-ESAB.

FCAW repair welding of weld joint identified as SEG3014S-005. Welder is identified as 045143. ZPMC QC is identified as Mr. Sun tian liang. The welding variables recorded by QC personnel observed appeared to comply with WPS: B-T-2231-ESAB.

SMAW welding of weld joint identified as SEG3015H-234. Welder is identified as 067588. ZPMC QC is identified as Mr. Sun tian liang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2214-TC-U4b-FCM-1.

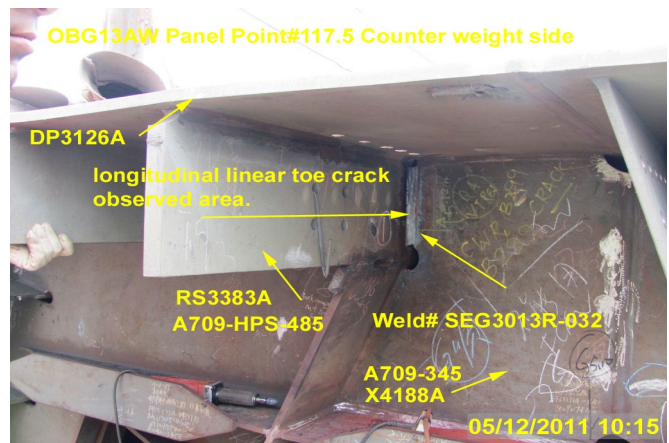
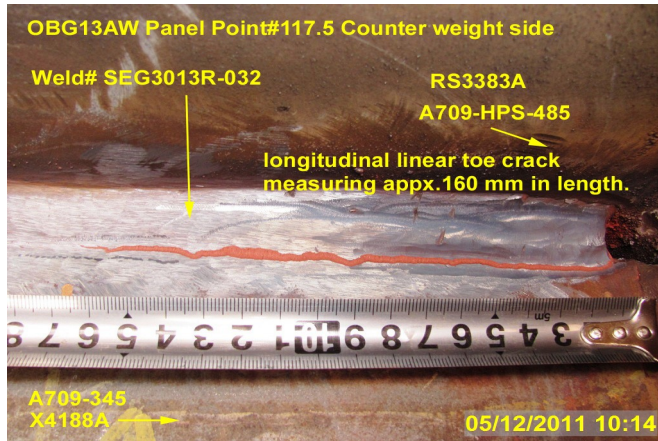
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





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## Summary of Conversations:

No significant conversations were reported on this date.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

**Reviewed By:** Peterson,Art

QA Reviewer